

34. (New) A method of generating a coloured or shaded texture for images, the images to be displayed on a display device or printed, the method including the steps of:

(a) providing a plurality of shape elements, each shape element defining a surface;

(b) providing each of the shape elements with an opacity which varies over its surface;

(c) arranging the shape elements in an overlapping fashion to fill a predetermined region of said images such that the region has a substantially uniform opacity, the region lying within a boundary defined by a closed curve; and

(d) rendering the shape elements for output to a printer or display device, such that the overlapping opacities generate a coloured or shaded texture.

35. (New) A method according to claim 34, wherein the closed curve is defined by a font character outline.

REMARKS

This application has been reviewed in light of the Office Action dated July 29, 2002. Claims 1-35 are presented for examination. Claims 32-35 have been added to provide Applicant with a more complete scope of protection. Claims 1, 24, 29, 30, 32, and 34 are in independent form. Favorable reconsideration is requested.

A Letter Transmitting Corrected Formal Drawings is submitted herewith, in response to the objections noted in the form PTO-948.

The Office Action objected to the drawings based on the Draftsperson's objection to the figures, as set forth on form PTO-948.

Applicant has carefully reviewed and amended the figures to overcome the noted objections with the exception to the objection under 37 C.F.R. § 1.84(b), Photographs. Applicant respectfully traverses this objection, and notes that the figures (in particular 7-12, and 15) are not photographs. These figures are representations of shaded texture which can be displayed on a display device or printer. Specifically, Figures 7-12 show a shaded texture overlaid with a flat letter "L". Figure 15 shows a font character "m" that has been filled with a texture generated in accordance with one of the preferred embodiments of the invention. (Page 7, lines 16-19 of the specification) In view of the foregoing, Applicant believes that the drawings comply with the requirements of 37 C.F.R. § 1.84(b). Applicant further believes that the other objections to the figures have been obviated, and their withdrawal is therefore respectfully requested.

Claims 1-31 were rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,861,891 (*Becker*).

Applicant respectfully traverses the rejection of Claims 1-31 because *Becker* does not teach or suggest the claimed invention. Nor does *Becker* provide a teaching or suggestion or incentive to perform any modifications to produce Applicant's claimed invention.

The aspect of the present invention set forth in Claim 1 is to a method of generating a coloured or shaded texture for images to be printed or displayed on a display device. According to this claim, a plurality of shape elements are provided. Each shape element defines a surface and is provided with an opacity which varies over its surface. The shape elements are arranged in an overlapping fashion to fill a predetermined region of the images such that the region has a substantially uniform opacity. Further, the shape elements are rendered for output to a printer or display device, such that the overlapping opacities generate a coloured or shaded texture.

Applicant respectfully submits that *Becker* fails to disclose at least the step of arranging the shape elements in an overlapping fashion to fill a predetermined region of the images such that the region has a substantially uniform opacity, as recited in Claim 1 of the present invention. The Office Action on page 3 alleges that *Becker* disclosing this feature, and cites column 1, lines 31-38; column 2, lines 17-28; column 3, lines 47-61; column 4, lines 9-14,, column 8, lines 14-41; and Figures 2-4 and 7A of *Becker* as support therefor. For reasons given below, Applicant respectfully disagrees with this reading of *Becker*.

Becker, as understood by Applicant, relates to a method, system and computer program for visually approximating the appearance of data points in a scatter plot. In contrast, the aspect of the present invention recited in Claim 1, is not related to scatter plots, but instead is directed to a method of generating a coloured or shaded texture. As described on page 1, lines 6-9 of the specification, this method has been developed primarily for use in generating background effects for displayed or printed matter. The

texture generated may, however, be applied to any suitable subject, including sprites and lettering.

Applicant submits that *Becker* fails to teach or suggest step (c) of Claim 1, or the possibility or desirability of modifying *Becker* to obtain the feature of step (c), "arranging the shape elements in an overlapping fashion to fill a predetermined region of said images such that the region has a substantially uniform opacity".

Further, Applicant submits that the Office Action fails to establish a *prima facie* case of obviousness. To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claimed limitations. MPEP § 2143.

The purpose of *Becker* is to visually approximate scattered data, and Applicant has found nothing in *Becker* that teaches or suggests the filling of, or the desirability to fill, a predetermined region. As can be seen in Figures 2-4 of *Becker*, there is no predefined region filled by the splat objects. The location and density of the shapes formed by the splats are determined by the distribution of the input data of the scatter plot.

Further, *Becker* teaches away from the feature that the regions have a substantially uniform opacity. The method of *Becker* relies on displaying differences in opacity in order to visually approximate the distribution of scattered data. As stated on column 1, lines 65 and 66, the opacity of each splat "is a function of the number (count) of

data points in a corresponding bin". Similarly, column 6, lines 38-40 confirm that "the splat opacity is a function of the count of aggregated data points in a corresponding bin". When the value of the global scale factor is varied, each splat's opacity is scaled differently depending upon its count, that is, the number of data points the splat represents (column 6, lines 51-58).

Because *Becker* relies on differences in opacities to visually approximate scattered data, Applicant respectfully submits that to modify *Becker* so as to provide regions of substantially uniform opacity would render *Becker* unsatisfactory for its intended purpose.

For the above reasons, Applicant submits that *Becker* does not suggest or teach the features of the present invention, as defined by Claim 1, and in particular, step (c) "arranging the shape elements in an overlapping fashion to fill a predetermined region of said images such that the region has a substantially uniform opacity". Further, to modify *Becker* such that the shape objects (i.e., the splats) provide regions of substantially uniform opacity would render *Becker* unsatisfactory for its intended purpose of visually approximating scattered data.

In view of the foregoing, Applicant submits that a *prima facie* case of obviousness has not been established and accordingly, submits that Claim 1 is patentable over the cited art, and respectfully request withdrawal of the rejection under 35 U.S.C. § 103(a).

Independent Claims 24, 29, and 30 are respectively an apparatus claim, a method claim, and a computer storage medium claim, and recite features similar to those

recited in Claim 1, and are believed patentable for reasons substantially similar as those discussed above in connection with Claim 1.

New independent Claim 32 includes the recitations of Claims 1 and 19.

Although Claim 19 has been rejected as unpatentable in light of *Becker*, the Office Action provides no reasoning as to how *Becker* is seen to teach or suggest the step of varying the opacity of one or more of the shape elements over time, and periodically rendering the shape elements. Because the opacity of the splats in *Becker* is used to represent the number of data points within a bin, varying the opacity of a splat over time would render *Becker* incapable of representing the number of data points in the bin.

New independent Claim 34 includes the recitations of Claims 1 and 22.

Applicant submits that nothing has been found in *Becker* that teaches or suggests providing a coloured or shaded texture within a boundary defined by a closed curve. Furthermore, nothing has been found in *Becker* that teaches or suggests providing a texture within the closed the closed curve, where the closed curve is defined by a font character outline, as defined in Claim 35.

For these reasons and those discussed in connection with Claim 1 above, Applicant submits that independent Claims 32 and 34 are believed allowable.

The other rejected claims in this application depend from one or another of the independent claims discussed above, and, therefore, are submitted to be patentable for at least the same reasons. Since each dependent claim is also deemed to define an additional aspect of the invention, individual reconsideration of the patentability of each claim on its own merits is respectfully requested.

In view of the foregoing amendments and remarks, Applicant respectfully requests favorable reconsideration and early passage to issue of the present application.

Applicant's undersigned attorney may be reached in our New York Office by telephone at (212) 218-2100. All correspondence should continue to be directed to our address listed below.

Respectfully submitted,

El P. Diana
Attorney for Applicant

Registration No. 29 296

FITZPATRICK, CELLA, HARPER & SCINTO
30 Rockefeller Plaza
New York, New York 10112-3801
Facsimile: (212) 218-2200
NY MAIN 316697